ifm electronic

CE

Operating instructions

(Safety-related part ATEX)
Inductive proximity switches NAMUR

UK

N95001 / N95002

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Information on the safe use in hazardous areas

Function and features

- Use in hazardous areas according to the classification
  II 2G (Group II, category 2G, apparatus for gas atmosphere).
  The unit conforms to the requirements of EN 60079-0:2009 and EN 60079-11:2012.
  EC type test certificate

  BVS 03 ATEX E131

- Use in hazardous areas (only for non-conductive dusts) according to the classification
  II 1D (Group II, category 1D, apparatus for dust atmosphere).
  The requirements of the EN 60079-0:2009 and EN 60079-11:2012 standards are met.
  EC type test certificate

  BVS 04 ATEX E153

- Marking

II 2G Ex ia IIC T6 Gb	Ta: -20...70°C
II 1D Ex ia IIIB T 90°C Da	Ta: -20...70°C
II 2G Ex ia IIC T5 Gb	Ta: -20...80°C
II 1D Ex ia IIIB T 100°C Da	Ta: -20...80°C

Installation / Setup

Only qualified staff with a knowledge of protection classes, regulations and provisions for apparatus in hazardous locations may install, connect and set up the units.

Check whether the classification (see „Marking“ above and marking on the unit) is suitable for the application.

- Sensor connection: Only to intrinsically safe certified circuits or evaluation amplifiers which do not exceed the following maximum values of the units:

  Ui = 15 V, Ii = 50 mA, Pi = 120 mW

- Solenoid valve connection: Only to intrinsically safe certified circuits of solenoid valves that do not exceed the following maximum values of the units. Also observe the technical data sheet.

Ui = 28V, Pi = 2W

- Pin layout connector Rd 24x1/8 (field connection):

Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6
+ sensor 1	- sensor 2	+ sensor 2	- sensor 1	+ solenoid valve	- solenoid valve
Pin PE: Plug housing M12 connector					

- Pin layout M12 connector

Pin 1	Pin 2
+ connection solenoid valve	- connection solenoid valve
Pin 3, Pin 4, Pin 5: not connected	

- Permissible operating temperature of the application (referred to the maximum permissible power of 120 mW):

-20...70°C	2G	IIC	T6
-20...80°C	2G	IIC	T5
-20...70°C	1D		90°C
-20...80°C	1D		100°C

- Maximum effective internal inductance (Li) and capacitance (Ci) per sensor:

Article no.	Internal inductance in µH	Internal capacitance in nF
N95001	150	150
N95002	150	100

Installation remarks / Mounting

- Adhere to the relevant national regulations and provisions.
- The unit must conform to the corresponding installation regulations (e.g. EN 60079-14, EN 1127-1).
- Avoid electrostatic charging from housings and cables.
- To avoid electrostatic charging steps must be taken to ensure the equalisation of potential of metal parts (plug housing, fixing elements, etc.). For this purpose the plug housing of the M12 connector (connection solenoid valve) is connected to PIN PE of the connector Rd 24x1/8. According to the requirements of the installation regulations the plug housing can be grounded via this pin to avoid electrostatic charging, if grounding is not ensured otherwise.
- Protect the units efficiently against damage.

CAUTION
Avoid electrostatic charging from housings and cables.

Maintenance / Repair

The unit must not be modified nor can it be repaired. In case of a fault please contact the manufacturer.
If needed, you can obtain data sheets or EC type test certificates from the manufacturer.